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C L A I M S

1. An auxiliary power unit (APU) for electricity generation in combination with an internal combustion engine having an outlet for engine exhaust gas, the APU comprising

5 1) a solid oxide fuel cell (SOFC) comprising an inlet for fuel, an inlet for air and/or engine exhaust gas, and an outlet for off-gas, and

2) a catalytic partial oxidation reformer (CPOx) having an outlet which is connected to the inlet for fuel of the SOFC and an inlet for reactants, characterized in that
10 the inlet for reactants is connected to the outlet for engine exhaust gas of the internal combustion engine through an evaporator having an inlet for fuel and an inlet for engine exhaust gas and an outlet which is
15 connected to the inlet of the CPOx.

2. A process for the generation of electricity from a hydrocarbonaceous fuel, wherein, in the auxiliary power unit of claim 1:

20 a) both hydrocarbonaceous fuel and engine exhaust gas are introduced into the evaporator;

b) after which the evaporated or partly evaporated mixture of fuel and engine exhaust gas is introduced into the CPOx and converted into synthesis gas; and

25 c) the synthesis gas is introduced into the SOFC via the inlet for fuel and an oxygen-containing gas and/or engine exhaust gas is introduced into the SOFC via the inlet for air and/or engine exhaust gas to generate electricity.

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3. The process according to claim 2, wherein engine exhaust gas is introduced into the SOFC via the inlet for air and/or engine exhaust gas.

5 4. The process according to claim 2 or 3 wherein the engine exhaust gas is introduced into the evaporator as a mixture with an oxygen-containing gas.

5. The process according to claim 4, wherein the oxygen-containing gas is air.

10 6. The process according to any one of claims 2-5 wherein diesel or gasoline is used as the hydrocarbonaceous fuel, preferably diesel.